TOYOTA'S WOVEN CITY By Jordan Savoie, Electrical Engineering and Mathematics '23



At the 2020 Consumer Electronics Show in Las Vegas, Toyota unveiled its plans for a new city at the base of Mt. Fuji. Designed by the American-Danish architecture firm BIG (Bjarke Ingels Group), the project will implement many of the ideas floating in futurist and urbanist circles. Specifically, the city will be a laboratory to see how society might reshape itself around automation, the environment, new energy sources, and human health and mobility. Toyota invites other institutions to partner with it as well as individual researchers interested in the project. Construction began in early 2021.

To minimize unnecessary carbon emissions, the buildings will be built largely utilizing traditional Japanese carpentry joining wood without the use of nails or screws—and solar cells on their roofs will provide electricity. Advanced automation will be integrated into the homes with Al that will learn to adapt itself to its inhabitants; for some members of the community, this will even include the Toyota Human Support Robot. These buildings will be placed in a superblock structure, with fast-traveling vehicles allowed only on the outer roads of each block. Within these blocks, vehicles will be permitted to move slowly among pedestrians in mixed streets, but the innermost areas will be pedestrian-only pathways. The grid will be distorted, curving the streets to fit the major community spaces within each block as well as make them less car-friendly.

The transportation needs of the city will be served by a fleet of autonomous vehicles manufactured by Toyota. These will include e-Palettes (mobile platforms which Toyota intends



to be used for purposes ranging from transportation to food trucks), micro palettes, a dog-sized robot for deliveries, and the LQ—a electric car with an Al capable of building a bond with its driver. These are still in development, and it's not clear how they will mature—though Toyota does seem serious about these, as they've already partnered with companies who might use them.

This might remind some people of Disney's original plans for EPCOT, the Experimental Prototype City of Tomorrow. It would have been a partnership between Disney and major corporations, where Disney could correct everything he thought was wrong with the design of cities, and the corporations would have a large pool of testers for their products. The idea—make an urban center from scratch, attract corporate partners and investors to fund it and make it habitable, and convince the public to go and actually live there—only seemed possible to Disney. At that time, it probably would have only been possible for Disney. Sadly, he was unable to implement anything beyond plans and a documentary before his death in 1966 due to complications from lung cancer.

In many ways, the vision for this city of the future differs greatly from Disney's. EPCOT would have been a high-rise business district surrounded by a park-filled green belt through which people commuted by monorail and PeopleMover from residential areas on the perimeter. This is a much more regimented and segregated idea than the Woven City, where homes, places of work, and parks will intermingle. Indeed, Toyota's project is similar to pre-car city planning with modern technology and sustainability measures tacked on. The concept dives straight toward the natural conclusion of decreasing car dependence that many cities have been cultivating over the last thirty years. Because of this, Toyota's project seems more likely to succeed than EPCOT ever did.